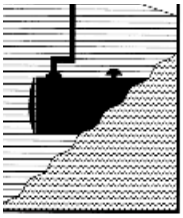

UST INFORMATION

TESTING REQUIREMENTS FOR AUTOMATIC LINE LEAK DETECTORS

Background: Federal underground storage tank (UST) regulations require that automatic line leak detectors (ALLDs) - which must be on all pressurized piping - be tested annually: "An annual test of the operation of the leak detector must be conducted in accordance with the manufacturer's requirements" (40 CFR Part 280.44(a)). There is disagreement in the leak detection community about whether this annual test must be one of operability or whether it must be a quantitative test against the performance standard of 3 gallons per hour (gph) at 10 pounds per square inch (psi) within 1 hour. This distinction is important: many mechanical ALLDs are being replaced because they do not pass such a quantitative test, raising both environmental and economic concerns.

Clarification: The Environmental Protection Agency (EPA) requires that ALLDs be tested annually to ensure that they are properly installed and maintained, have not been tampered with, and are operating in accordance with the manufacturer's requirements. There are no further EPA annual test standards for ALLDs. The standard of 3 gph at 10 psi within 1 hour with a probability of detection of 0.95 and a probability of false alarm of 0.05 is the standard that a representative ALLD had to meet "out-of-the-box," when evaluated using the recommended EPA standard test procedure. The 3 gph at 10 psi is *not* the requirement for the annual test. Of course, records of the test and of all calibration, maintenance, and repair must be maintained for at least 1 year or as determined by the implementing agency (40 CFR Part 280.45).

Discussion: A review of the regulatory record shows that EPA did not intend to require a quantitative test of ALLD performance in the field. Analysis of recent field data indicates that properly managed pressure lines with operating ALLDs demonstrate a vast reduction in the number and severity of leaks compared with lines of a few years ago. Data also show that ALLDs are detecting catastrophic leaks and that replacement to comply with the 3 gph at 10 psi level would not yield appreciable environmental benefit.

Contact: For additional information, contact the North Dakota Department of Health at (701) 328-5166.

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